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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,584	10/18/2007	Michael Joseph Blackhurst	FPHCR.115NP	1061

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EXAMINER

CHEN, VICTORIA W

ART UNIT	PAPER NUMBER
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3779

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/599,584	Applicant(s) BLACKHURST ET AL.	
	Examiner VICTORIA W. CHEN	Art Unit 3779	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/2/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Endoscope Warming Device with Whitening Element

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of steps recited in claim 6 and the handle clip of claim 17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

The claims are objected to because of the following informalities:

Claim 2, line 8, "siad" should be --said--.

Claim 2, line 11 is missing a period after "layer".

Claim 15 is objected to because of the following informalities: line 2, there appears to be an errant "1" after "wherein said".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 10 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification makes no mention of the claim materials that make up the whitening element.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 2-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 13 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the relationship between the heat conducting tube and heating element of claim 1 and the recited structures of claim 2.

Claim 2 recites the limitation "a heating element" in 10. It is unclear whether this is the same or another heating element as claimed in line 4 of claim 1. For purposes of examination, they are considered the same element.

Claim 5 recites the limitation "said double walled cylindrical tube" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "said external wall" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "said aperture" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "said tube" in line 3. It is unclear whether the tube cited is the double walled cylindrical tube or the heat conducting tube.

Claim 8 recites the limitation "said conductive material" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "said conductive material" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "said upper surface" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 7, 8, 10-12 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Beane et al. (US 2002/0022762 A1).

Beane discloses:

1. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument comprising: a heat conducting tube [114] capable of receiving said distal portion, a heating element [120] thermally coupled to said tube, and a whitening element [116] within or at the distal end of said tube that enables white balancing of said optical instrument. Since white balancing is capable of being done with the visualization of any color of material, albeit more accurately with some relative to others, it is considered inherently capable of being done with element 116.

3. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 or 2 wherein said apparatus is constructed from a thermoplastics type material [par. 0061].

4. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 wherein said apparatus is constructed from a thermoset plastics material [par. 0061].

7. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 wherein said heating element comprises a conductive material [par. 0057].

8. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 wherein said conductive material is water or saline solution [par. 0057, e.g. water].

10. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 wherein said whitening element is constructed from one of a group consisting of a thermoset plastics material, thermoform plastics material, ceramics material, non-woven material and woven fibrous material [par. 0061, cotton is a woven fibrous material].

11. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 wherein said heating element is considered capable of being heated prior to use by micro-waving said apparatus.

12. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 wherein said heating element is considered capable of being heated prior to use by inserting said apparatus into a conventional oven type surgical warmer.

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14. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 wherein said apparatus is disposable. Anything is capable of being thrown away, thus the apparatus is considered inherently disposable.

15. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 wherein said tube has an attachment mechanism [162] attached to said upper surface configured to removably attach said apparatus to a surgical drape or table [par. 0066].

16. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 15 wherein said attachment mechanism is a handle [Fig. 2D, 162 can be used as a handle].

17. An apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 15 wherein said attachment mechanism is a handle clip [162].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 5, 6, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beane, as applied to claim 1 above, in view of Mukaida (US 6789644 B2).

Regarding claim 2, Beane teaches an apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 further comprising: a cylindrical tube [112] having an external wall [labeled 112 in Fig. 2B], upper surface [entire outer surface of external wall of apparatus] and open distal portion [Fig. 2C, top of 112 labeled in Figure as 118] with central cavity [interior space of 112 in which 120 lies] there between, an aperture [defined by the space of the central cavity] extending from said upper surface sized and shaped to receive said distal portion of said optical instrument, a cap [118] sized to attach to said distal portion of said cylindrical tube, a heating element [120] enclosed within said central cavity wherein said whitening element [116] is located in the distal portion of said aperture [Figs. 2A & 2C], such that said distal portion of said optical instrument abuts said whitening element and light from said optical instrument is capable of being reflected off said whitening element back to said optical instrument in order to achieve white balancing of said optical instrument [par. 0064]. However, Beane fails to specifically teach a double walled cylindrical tube having an internal wall, external wall and an insulation layer between the internal and external walls, or the heating element being thermally coupled to said insulation layer. Mukaida (US 6789644 B2) teaches it is commonly known that double wall constructions comprising an insulation layer in

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between [Fig. 3, between 14a, 14b] enhance heat insulating efficiency to decrease the heat transfer toward the outside placed double-wall construction [col. 6, ll. 50-60]. Since Beane teaches a heater than is intended to be grasped by a user, it would have been obvious to one of ordinary skill to modify the cylindrical tube with a double wall construction and insulating layer as taught by Mukaida to provide the advantage of enhancing heat insulating efficiency to decrease the heat transfer toward the outside placed double-wall construction and further, to achieve the predictable result of protecting the user's hand.

Regarding claim 5, Beane teaches an apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1 wherein said double walled cylindrical tube has a horizontal cavity [e.g. slits 144a,b] extending from said external wall through said distal portion of said aperture, sized and shaped to fit said whitening element.

Regarding claim 6, Beane teaches an apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 5 wherein said aperture comprises a plurality of steps of decreasing circumference toward the distal portion of said tube to provide enhanced support for said optical instrument when inserted into said tube [e.g. 112 can be seen to have decreasing circumference in Fig. 2D, where a unit of length of 112 can be interpreted as a step].

Regarding claim 13, Beane teaches an apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 2 wherein said insulation layer comprises air [Mukaida, col. 6, ll. 50-60].

Regarding claim 18, Beane teaches an apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 2, but fails to teach said aperture having a flexible grommet surrounding at least a portion of said upper surface adaptable to receive said distal portion of an optical instrument of differing size in the same embodiment. However, Beane teaches another embodiment of the invention as a cannula device with a cylindrical tube [616] having the same function, and many of the same components of the prior embodiment that can be seen in Fig. 6A. This embodiment comprises a flexible grommet [620] surrounding a portion of said upper surface [interpreted as external surface of 616, onto which 612 is attached] to provide the advantage of removing fluid from the shaft of the optical instrument as it is either inserted or removed from the apparatus [par. 0089]. Therefore, it would have been obvious to one of ordinary skill in the art to modify the embodiment as taught by Beane with a flexible grommet to provide the advantage of removing fluid from the shaft of the optical instrument as it is either inserted or removed from the apparatus.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beane, as applied to claim 1 above, in view of Agarwal et al. (US 2003/0124277 A1).

Beane teaches an apparatus to calibrate an optical instrument and warm a distal portion of said optical instrument according to claim 1, but fail to specifically teach wherein said conductive material is selected from a group consisting of wheat, barley, oat grass seeds and rice. Beane does teach that the heating element [120], which is an exothermic heater, can be substituted with other types of heating elements [oar. 0067]. Agarwal teaches seed-type products, like rice, are commonly known thermal agents, which are advantageous alternatives to exothermic compositions because they are natural and safe and conform to the space in which

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they are placed [par. 0067]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to substitute the heating element as taught by Beane with rice as taught by Agarwal in order to provide the advantage of safety. Further, Agarwal teaches seed-type products as thermal agents can retain heat by heating from external sources (e.g. microwave, oven). It would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the heating element as taught by Beane with the rice as taught by Agarwal, because Applicant has not disclosed that particular type of heating element provides an advantage, is used for a particular purpose, or solve a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the heating element as taught by Beane, because it provides thermal transfer and since it appears to be an arbitrary design consideration which fails to patentably distinguish over Beane. Therefore, it would have been an obvious matter of design choice to modify Beane to obtain the invention as specified in the claim(s).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 20080161646 A1	Gomez; Ricardo Alexander	Device For White Balancing And Appying An Anti-Fog Agent To Medical Videoscopes Prior To Medical Procedures
US 20030052117 A1	Iniestra Hernandez, Jorge	Food warmer and preserver
US 7537563 B2	Temple; John	Heater for surgical viewing instruments
US 7018331 B2	Chang; Huei Liang et al.	Endoscope assembly useful with a scope-sensing light cable
US 6464633 B1	Hosoda; Seiichi et al.	Light source device for endoscope using DMD
US 6147337 A	Besser; John E.	Microwaveable heat retentive receptacle
US 5868666 A	Okada; Yoshihiro et al.	Endoscope apparatus using programmable integrated circuit to constitute internal structure thereof

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US 5400767 A	Murdoch; Mervyn J.	Laparoscopic telescope lens cleaner and protector
US 5339800 A	Wiita; Bruce E. et al.	Lens cleaning means for invasive viewing medical instruments with anti-contamination means
US 4983798 A	Eckler; Paul E. et al.	Warming devices and method using a material with a solid-solid phase change
US 4279246 A	Chikama; Toshio	Device for preventing clouding of an observing window

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VICTORIA W. CHEN whose telephone number is (571)272-3356. The examiner can normally be reached on Monday to Friday, 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas J. Sweet can be reached on (571) 272-4761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victoria W Chen/
Examiner, Art Unit 3779

/John P Leubecker/
Primary Examiner, AU 3779